

This listing of the claims replaces all prior versions in the application.

In the Claims:

1. (Original) Method of connecting channels including a) forming at least one flow path in a first substrate; b) forming at least one flow path in a second substrate; c) contacting the first and second substrates to form at least one channel and d) forming at least one cut in an external face of the first substrate, the cut being of sufficient depth to intersect one or more of the channels such that, in use, a fluid passing along a fluid pathway defined by the at least one cut may pass into the at least one channel, characterised in that the substrates are bonded before the at least one cut is formed therein.

2. (Original) Method according to claim 1 including the step of making at least one cut in an external face of the second substrate, the cut being of sufficient depth to intersect one or more of said channels such that only the required interconnections are made by the at least one cut.

3. (Original) Method according to claim 2 including the steps of a) forming at least one flow path in a third substrate and b) joining the third substrate to the first and second substrates.

4. (Previously Presented) Method according to claim 1 wherein the at least one cut formed in the first substrate and the at least one cut formed in the second substrate are off-set.

5. (Previously Presented) Method according to claim 1 wherein the at least one cut formed substantially perpendicular to the plane of the substrate.

6. (Previously Presented) Method according to claim 1 wherein the cuts are formed by sawing.

7. (Previously Presented) Method according to claim 1 wherein the cuts are formed by mechanical milling.

8. (Previously Presented) Method according to claim 1 wherein the cuts are formed by laser ablation.

9. (Previously Presented) Method according to claim 1 wherein the cuts are formed by photolithography.

10. (Previously Presented) Method according to claim 1 wherein the cuts are formed by chemical etching.

11. (Previously Presented) Apparatus for transporting at least one fluid, the apparatus including at least a first substrate and a second substrate which have portions removed therefrom, so as to define at least one channel, the at least one channel being interconnected according to the method of claim 1.

12. (Original) Apparatus according to claim 11 further including a third substrate situated between the first and second substrates.

13. (Original) Apparatus according to claim 11 further including a third substrate situated adjacent the second substrate, the third substrate having portions removed therefrom so as to define at least one channel.

14. (Original) Apparatus according to claim 11 wherein the first substrate is glass.

15. (Original) Apparatus according to claim 11 wherein the second substrate is silicon.

16. (Original) Apparatus according to claim 12 wherein the third substrate is a mesh.

17. (Original) Apparatus according to claim 12 wherein the third substrate includes a polymer.

18. (Original) Apparatus according to claim 13 wherein the third substrate is glass.

19. (Previously Presented) Apparatus according to claim 11 wherein the substrate is a square approximately $5 \times 10^{-2}\text{m} \times 5 \times 10^{-2}\text{m}$.

20. (Original) Apparatus according to claim 11 wherein the channels are substantially straight.

21. (Original) Apparatus according to claim 11 wherein the channels are substantially curved.

22. (Original) Apparatus according to claim 11 wherein the channels are between $1 \times 10^{-2}\text{m}$ and $5 \times 10^{-2}\text{m}$ in length.

23. (Canceled)

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24. (Previously Presented) A micro-fluidic device incorporating the apparatus as claimed in claim 11.